12. Maternal, Infant, and Child Health

Goal

Improve maternal health and pregnancy outcomes and reduce the rate of disability in infants, thereby improving the health and well being of women, infants, children, and families in the Commonwealth of Kentucky.

Overview

Improving the health of mothers and infants is a national as well as a state priority. Infant mortality is an important measure of a state's health and an indicator of health status and social well being. In addition, the disparity in infant mortality rates between whites and African Americans and other specific ethnic groups persists.

Infant mortality is not the only measure of the health of infants. This chapter addresses a range of indicators of maternal, infant, and child health, including those affecting women of childbearing age, pregnant and postpartum women.

Summary of Progress

Great strides have been made toward achieving the 2010 objectives. The target was surpassed for objective 12.16 which relates to decreasing neural tube defects to 12 per 10,000 births by increasing the proportion of women of childbearing age taking daily folic acid supplements. The mid-decade status of neural tube defects is 5.3 per 10,000 births (more than a 50 percent reduction below the 2010 Objective), while the proportion of women of childbearing age taking daily folic acid supplements is 45.6 percent (a 9.4 percent increase from 2000). The 2010 target was also surpassed by 34 percent for Objective 12.20 which relates to increasing the number of pregnant alcohol and drug abusers admitted to publicly funded substance abuse treatment programs. Progress has been made towards meeting the proportion of women who breastfeed their infants at hospital discharge from 54.2% to 56.5%, and a steady increase is being made in the WIC population who have breastfed from 26% in 2001 to 30.1% in 2004. Progress is also being made toward increasing the percent of newborns screened for hearing disorders before discharge, and in decreasing the death rate for children ages 5-14 in the state. The infant mortality rate has declined to 6.5 per 1,000 live births, down from 7.2 per 1,000 in 2002, and the perinatal mortality rate has declined considerably since 2001. Although the maternal mortality rate increased sharply in 2002, the rate has continued to decline since, and is currently at 7.7 per 100,000 live births. For areas in which targets are not being met, interventions and strategies have been put in place to improve the likelihood of achieving our 2010 Objectives.

Progress toward Achieving Each HK 2010 Objective

12.1. To reduce infant mortality to no more than 6 per 1,000 live births.

Data Source: Kentucky Vital Statistics Files, Live birth and Death Certificate files; 2004 data is preliminary and numbers could change.

Baseline: 6.7 per 1,000 live births in 2000

HK 2010 Target: 6.0 per 1,000

Mid-Decade Status: 6.5 per 1,000 live births in 2004

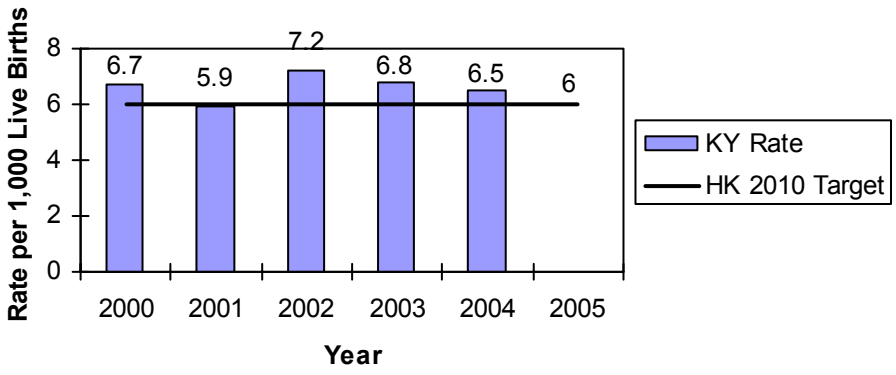

Figure 12.1 Infant Mortality Rate per 1,000 Live Births, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

Strategies to Achieve Objective:

- Provide preconception health counseling to all women of childbearing age with the goals of planned pregnancies, early entry into prenatal care, and access to genetic counseling and referrals
- Promote continuing educational opportunities to parents and families, health professionals, child-care providers, and others on the importance of a safe sleeping environment for infants under one year of age, related to Sudden Infant Death Syndrome (SIDS)
- Promote funding and education so that all health professionals, paraprofessionals, child care providers, and parents can be trained in CPR
- Educate the public on the adverse effects of alcohol, tobacco, and other drugs (ATOD)

12.2. Reduce the infant mortality rate due to birth defects to 1.2 per 1,000 live births.

Data Source: Kentucky Vital Statistics files, Live Birth and Death certificate files; 2004 data is preliminary and numbers could change.

Baseline: 1.4 per 1,000 live births in 2000

HK 2010 Target: 1.2 per 1,000 live births

Mid-Decade Status: 1.1 per 1,000 live births in 2004

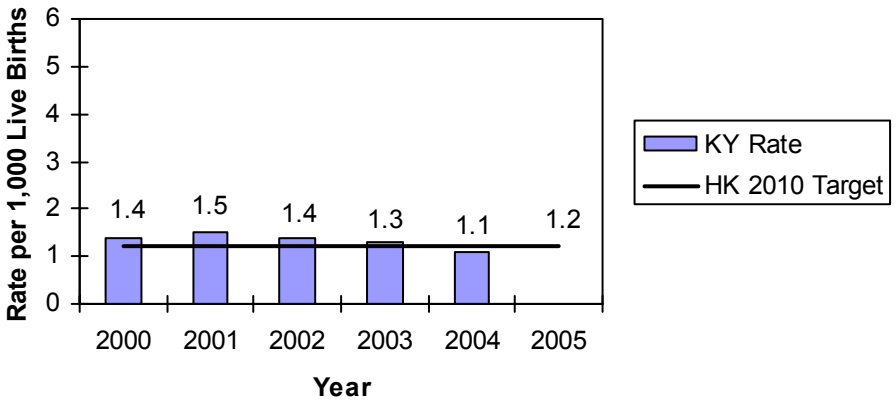

Figure 12.2 Infant Mortality Rate Due to Congenital Anomalies, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth

Strategies to Achieve Objective:

- Promote preconception care to all women of childbearing age during routine primary care visits to help identify individual risk factors and educate women on healthy lifestyles prior to pregnancy
- Assist pregnant women in early entry to prenatal care and promote continuation of care throughout the pregnancy
- Educate the public on the adverse effects of alcohol and diabetes in women of childbearing age and women who are already pregnant
- Support the Department for Public Health, March of Dimes, and the Kentucky Spina Bifida Association, through a statewide campaign (Kentucky Folic Acid Partnership) to decrease the incidence of neural tube defects (NTD) and premature births

12.3. Reduce the Sudden Infant Death Syndrome (SIDS) mortality rate to 0.3 per 1,000 live births.

Data Sources: Kentucky Vital Statistics files, Live Birth and Death certificate files; 2004 data is preliminary and numbers could change.

Baseline: 0.6 per 1,000 live births in 2000

HK 2010 Target: 0.3 per 1,000 live births

Mid-Decade Status: 0.9 per 1,000 live births

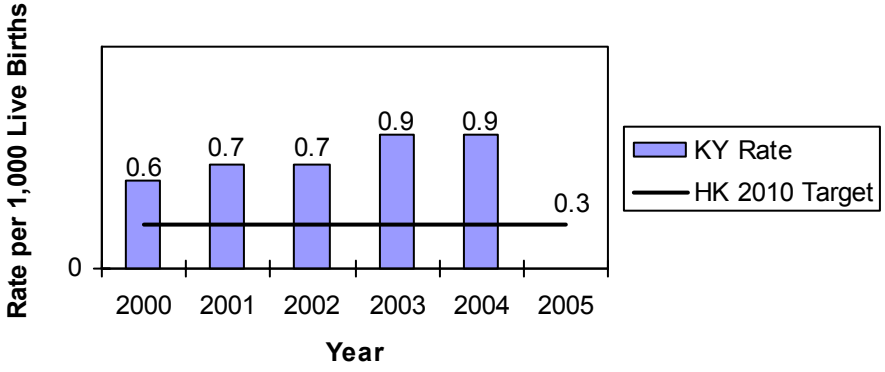

Figure 12.3 Infant Mortality Rate Due to SIDS, Kentucky, 2000-2004 (Source: Vital Records Surveillance System)

Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth.

Strategies to Achieve Objective:

- Increase public awareness about methods and practices to reduce infant deaths in the sleeping environment
- Increase awareness in Spanish population and other language speaking populations about methods and practices to reduce infant deaths
- Assure professional education through the provision of prevention information to reduce infant death associated with SIDS
- Develop an integrated electronic data entry system to track child deaths

12.4. Reduce the rate of child mortality to 20 per 100,000 children ages 1-4 and 17 per 100,000 children ages 5-14.

Data Source: Kentucky Vital Statistics files, death certificate files, and population estimates for Kentucky as provided by the Kentucky State Data Center, University of Louisville; 2004 data is preliminary and numbers could change.

Baseline: Children 1-4: 33.8 per 100,000 in 2000
Children 5-14: 17.5 per 100,000 in 2000

HK 2010 Target: Children 1-4: 20 per 100,000
Children 5-14: 17 per 100,000

Mid-Decade Status: Children 1-4: 33.9 per 100,000 in 2004
Children 5-14: 17 per 100,000 in 2004

Indicator	2000	2001	2002	2003	2004
Mortality Rate Children Aged 1-4	**33.8/ 100,000**	**35/ 100,000**	**37/ 100,000**	**38.9/ 100,000**	**33.9/ 100,000**
Mortality Rate Children Aged 5-14	**17.5/ 100,000**	**21.3/ 100,000**	**19.3/ 100,000**	**19.6/ 100,000**	**17/ 100,000**

Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth.

Strategies to Achieve Objective:

- Develop an integrated electronic data system for evaluating all child death causes
- Publish an annual Kentucky Child Fatality Review Report, including the identification of disparities regarding age, race and sex distributions for children under age 15 and promote child death prevention systems
- Provide professional education on prevention methods and practices to reduce the major causes of child deaths under age 15
- Increase awareness in the Hispanic and other minority populations about methods and practices to reduce the major child death causes under age 15

12.5. Reduce the fetal death rate to no more than 4 per 1,000 live births plus fetal deaths.

Data Sources: Kentucky Vital Statistics files, Fetal Death, and Live Birth Certificate files; 2004 data is preliminary and numbers could change.

Baseline: 6.4 per 1,000 live births plus fetal deaths in 2000

HK 2010 Target: 4 per 1,000 live births plus fetal deaths

Mid-Decade Status: 5.7 per 1,000 live births plus fetal deaths in 2004

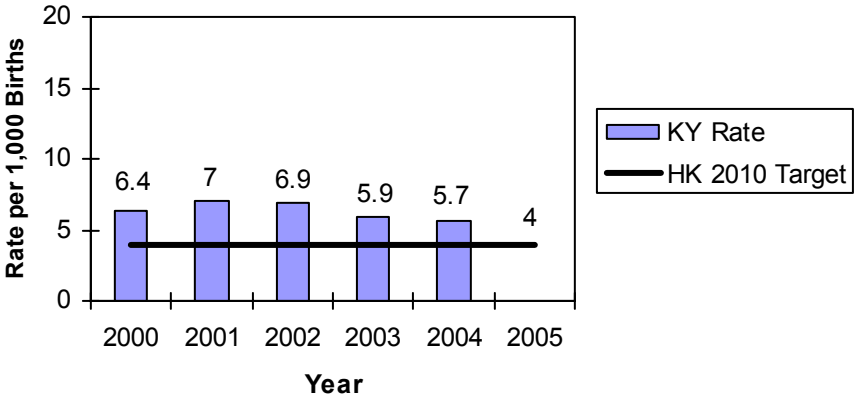

Figure 12.4 Fetal Death Rate per 1,000 Live Births Plus Fetal Deaths, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

Data Needs: Continued maintenance of the Vital Statistics System of live births and fetal deaths for the Commonwealth.

Strategies to Achieve Objective:

- Preconception counseling for all women of childbearing age to decrease risk factors prior to conception, including identification of substance abusers, those with chronic medical conditions, women who may be victims of domestic violence, and genetic risk factors
- Promote early and consistent prenatal care by increasing access to include non-traditional sites for pregnancy testing and prenatal care
- Provide access to prenatal care, continuation of prenatal care, and appropriate referral services regardless of income status

12.6. Reduce the perinatal mortality rate to no more than 4.5 per 1,000 live births plus fetal deaths.

Data Sources: Kentucky Vital Statistics files, Death, Fetal Death, and Live Birth Certificate files; 2004 data is preliminary and numbers could change.

Baseline: 9.1 per 1,000 live births plus fetal deaths in 2000

HK 2010 Target: 4.5 per 1,000

Mid-Decade Status: 7.5 per 1,000 live births plus fetal deaths in 2004

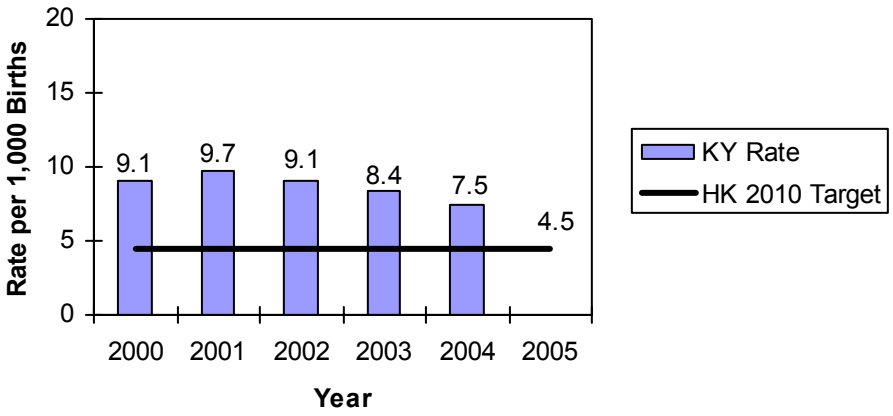

Figure 12.5 Perinatal Mortality Rate per 1,000 Live Births Plus Fetal Deaths, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth

Strategies to Achieve Objective:

- Facilitate early entry into prenatal care by coordinating efforts of health care providers
- Promote both professional and para-professional home visits with emphasis placed on high risk groups, including the use of neighborhood "mentors"
- Focus community education on groups at risk for poor pregnancy outcomes.

12.7. Reduce the maternal mortality rate to no more than 3.3 per 100,000 live births.

Data Sources: Kentucky Vital Statistics files, Live Birth and Death Certificate files; 2004 data is preliminary and numbers could change.

Baseline: 3.6 per 100,000 live births in 2000

HK 2010 Target: 3.3 per 100,000 live births

Mid-Decade Status: 7.7 per 100,000 live births in 2004

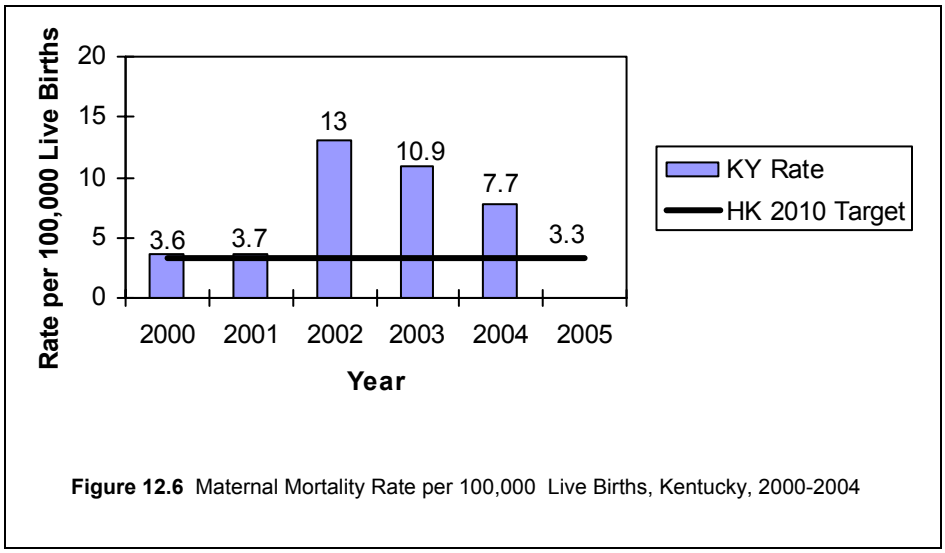

Figure 12.6 Maternal Mortality Rate per 100,000 Live Births, Kentucky, 2000-2004

Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth.

Strategies to Achieve Objective:

- Universal routine preconception and prenatal screening for depression, substance abuse, and domestic violence with appropriate referrals
- Provide access to early entry into prenatal care regardless of income status
- Promote continuing education of all health professionals to enhance their knowledge of complications of pregnancy with early identification and acceptable medical management and referrals when indicated
- Continued support of the Maternal Mortality Review Committee in investigation of all maternal deaths and pregnancy associated maternal deaths in Kentucky. The Committee identifies major contributing factors in maternal deaths and develops appropriate interventions for education of health care professionals and the public.

12.8. (Developmental) Increase the proportion of women's health care providers who routinely provide preconception counseling for women of childbearing age without a permanent method of contraception. (See Revision)

12.8R. (REVISION) Increase to 25 percent the percentage of women of childbearing age who routinely receive preconception counseling in local health departments.

Reason for Revision: This objective has been revised to reflect services received by women of childbearing age provided by local health departments rather than all health care providers since data collected will

only reflect services received in local health departments. Information regarding a permanent method of contraception cannot be obtained and therefore was eliminated from the objective.

Data Source: Patient Services Reporting System (PSRS) for local health departments.

Baseline: 13.3 percent in 2000

HK 2010 Target: 25 percent

Mid-Decade Status: 11.1 percent in 2004

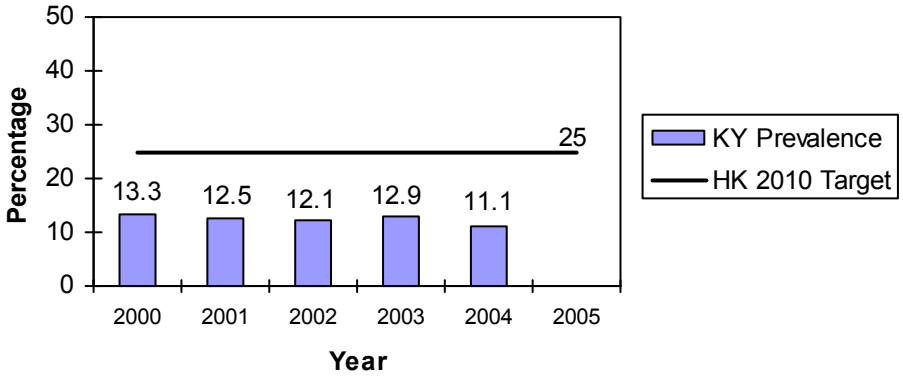

Figure 12.7 Percentage of Women Receiving Preconception Counseling at Local Health Departments, Kentucky, 2000-2004 (Source: PSRS)

Data Needs: Continued availability of data from the Patient Services Reporting System

Strategies to Achieve Objective:

- Assure preconception services and referrals to women of childbearing age regardless of income status
- Target hard to reach populations through outreach, education and specialized services
- Expand clinic hours and nontraditional family planning, exploring opportunities to provide services for hard to reach populations
- Develop a public awareness campaign promoting preconception services offered through the health departments

12.9. Increase to at least 90 percent the proportion of all pregnant women who begin prenatal care in the first trimester of pregnancy.

Data Sources: Kentucky Vital Statistics files, Live Birth Certificate files; 2004 data are preliminary and numbers could change.

Baseline: 85.7 percent in 2000

HK 2010 Target: 90 percent

Mid-Decade Status: 86.2 percent in 2004

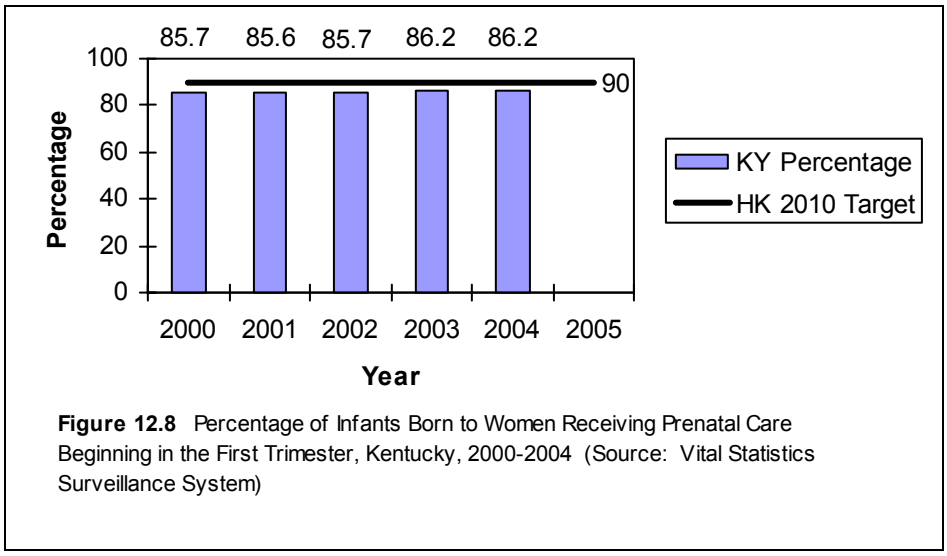

Figure 12.8 Percentage of Infants Born to Women Receiving Prenatal Care Beginning in the First Trimester, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth.

Strategies to Achieve Objective:

- Assist all pregnant women to access early prenatal services, and assist with the continuation of prenatal care throughout their pregnancy
- Provide outreach to women of childbearing age and pregnant women about the importance of early entry into prenatal care and target disparate populations
- Continue prenatal funding for uninsured prenatal clients
- Continue to build strong partnerships and contract services with University and private physicians to enable women of low income to access prenatal services

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12.10. Increase to at least 95 percent the proportion of all live born infants whose mothers received adequate prenatal care based on ACOG guidelines and the Kessner Index. (See Revision)

12.10R. (REVISION) Increase to at least 95 percent the proportion of all live born infants whose mothers received adequate prenatal care based on the Kotelchuck Index.

Reason for Revision: In the original objective, the method of choice for determining adequate prenatal care was the Kessner Index. This Index has recently been replaced with a newer method, the Kotelchuck Index, which is now considered the standard measure of choice in the maternal and child health field for determining adequacy of prenatal care.

Data Sources: Vital Statistics System, Live Birth Certificate files 2000-2004; Vital Statistics data for year 2004 is preliminary and numbers could change.

Baseline: 80.6 percent in 2000

HK 2010 Target: 95 percent

Mid-Decade Status: 82 percent in 2004

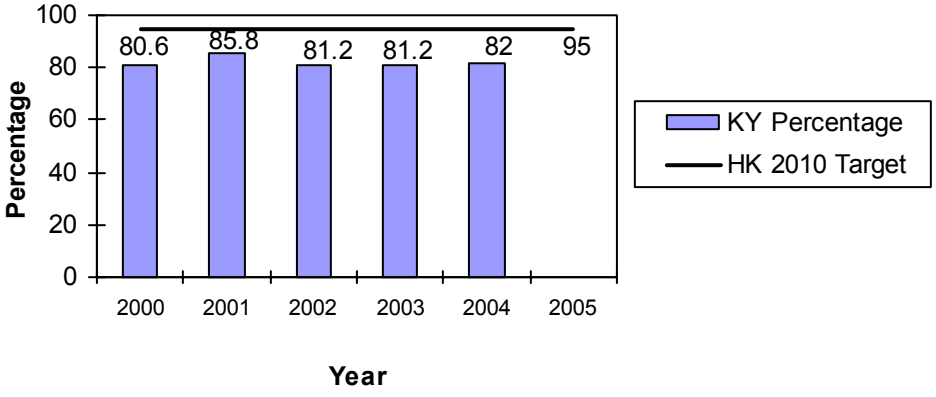

Figure 12.9 Percentage of Pregnant Women Who Received Adequate Prenatal Care Based on the Kotelchuck Index, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

Data Needs: Continued maintenance of the Vital Statistics System of Live Births for the Commonwealth.

Strategies to Achieve Objective:

- Assure preconception services and referrals to women of childbearing age regardless of income status
- Target hard to reach populations through outreach, education and specialized services
- Expand clinic hours and nontraditional family planning, exploring opportunities to provide services for hard to reach populations
- Develop a public awareness campaign promoting preconception services offered through local health departments

12.11. (Developmental) **Increase to at least 65 percent the proportion of women who receive a postpartum visit within 42 days after delivery. (DELETED)**

Reason for Deletion: This objective was deleted due to lack of a data source for appropriate monitoring.

12.12. Reduce the incidence of low birth weight to no more than 5 percent, very low birth weight to no more than 1 percent, and reduce the incidence of premature birth to no more than 7.6 percent of all live births.

Data Sources: Kentucky Vital Statistics files, Live Birth Certificate files; 2004 data are preliminary and numbers could change.

Baseline: Low Birth Weight: 8.2 percent in 2000
Very Low Birth Weight: 1.5 percent in 2000
Preterm Birth: 12.7 percent in 2000

HK 2010 Target: Low Birth Weight: 5 percent
Very Low Birth Weight: 1 percent
Preterm Birth: 7.6 percent

Mid-Decade Status: Low Birth Weight: 8.4 percent in 2004
Very Low Birth Weight: 1.5 percent in 2004
Preterm Birth: 15.8 percent in 2004

Indicator	2000	2001	2002	2003	2004
Low Birth Weight	**8.2%**	**8.5%**	**8.7%**	**8.8%**	**8.4%**
Very Low Birth Weight	**1.5%**	**1.7%**	**1.8%**	**1.6%**	**1.5%**
Preterm Birth	**12.7%**	**13.3%**	**13.6%**	**14.1%**	**15.8%**

Data Needs: Continued maintenance of the Vital Statistics System of Live Births for the Commonwealth

Strategies to Achieve Objective:

- Focus prenatal community-wide education campaigns on high risk pregnant women including women abusing substances, victims of domestic violence, teens, older mothers, women with inadequate nutrition, and those with chronic medical conditions and on disparate populations at high risk including African Americans and immigrants
- Provide preconception health counseling to all women of childbearing age utilizing community partnerships
- Provide or facilitate oral health education, screening, and treatment for pregnant women

12.13. Increase to at least 90 percent the proportion of very low birth weight infants (1500 grams or less) born at facilities equipped for high-risk deliveries and neonates.

Data Sources: Kentucky Vital Statistics files, Live Birth Certificate files; 2004 data are preliminary and numbers could change

Baseline: 51.7 percent in 2000

HK 2010 Target: 90 percent

Mid-Decade Status: 52 percent in 2004

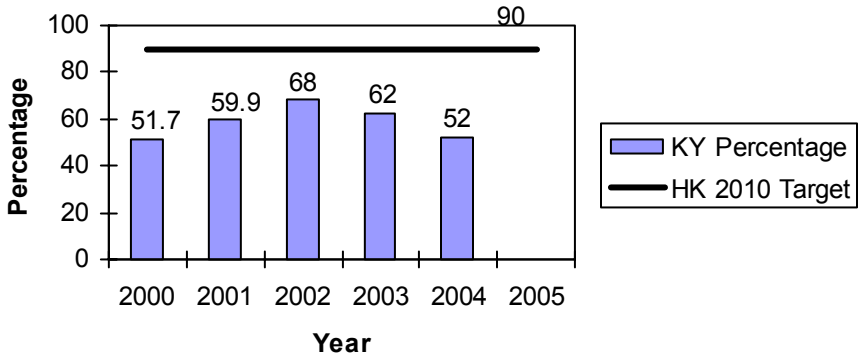

Figure 12.10 Percentage of Very Low Birthweight Infants Delivered at Facilites for High Risk Deliveries and Neonates, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

Data Needs: Continued maintenance of the Vital Statistics System of Live Births for the Commonwealth

Strategies to Achieve Objective:

- Promote the incorporation of routine prenatal education of all expectant parents on the signs and symptoms of preterm labor and the protocol to follow
- Promote access to early prenatal care and increase referrals for complications to qualified professionals and facilities specializing in high-risk pregnancy conditions
- Educate expectant parents on the necessity and improved outcomes of pre-delivery transfer of mothers with very low birth weight babies to a facility equipped for high risk deliveries and neonates
- Enhance continuing education of all health care providers and facilities that provide maternity services that are not equipped for high risk deliveries and neonates. Special emphasis to be provided on the importance of appropriate timing of pre-delivery maternal transfer, thereby avoiding emergency transfer

12.14. (Developmental) **Increase the proportion of women who achieve recommended weight gain during pregnancy. (DELETED)**

Reason for Deletion: This objective was deleted due to lack of a data source for appropriate monitoring

12.15. (Developmental) Increase to at least 75 percent the proportion of mothers who breastfeed their babies in the early postpartum period; to at least 50 percent the proportion who continue breastfeeding until their babies are 6 months old; and to at least 25 percent the proportion who breastfeed until their infants are 1 year old. (See Revision)

12.15R. (REVISION) Increase to at least 75 percent the proportion of mothers who breastfeed their babies at hospital discharge; to at least 50 percent the proportion who continue breastfeeding until their babies are 6 months old; and increase among the WIC population to at least 50 percent the proportion of mothers who have ever breastfed their babies; to at least 25 percent the proportion who are currently breastfeeding their babies.

Reason for Revision: This objective was revised since statewide data are not available on women who breastfeed their infants up to one year of age; this revision also reflects data that are available on the WIC population for women who have ever breastfed and those currently breastfeeding.

Data Source: Data on the state of Kentucky; Mother's Survey, Ross Products Division, Abbott Laboratories, Inc. 2000-2002; data from this survey are not yet available for 2003 and 2004. Data for the WIC population; WIC Breastfeeding Report, 2001-2004

Baseline: Kentucky; Hospital Discharge 54.2 percent in 2000
Kentucky; 6 months of age 23.9 percent in 2000
WIC; Ever breastfeed 26 percent in 2001
WIC; Currently breastfeed 8.8 percent in 2001

HK 2010 Target: Kentucky; Hospital Discharge 75 percent
Kentucky; 6 months of age 50 percent
WIC; Ever breastfeed 50 percent
WIC; Currently breastfeed 25 percent

Mid- Decade Status: Kentucky; Hospital Discharge 56.5 percent in 2002
Kentucky; 6 months of age 25.3 percent in 2002
WIC; Ever breastfeed 30.1 percent in 2004
WIC; Currently breastfeed 12.7 percent in 2004

Indicator	2000	2001	2002	2003	2004
Breastfeeding at Hospital Discharge	**54.2**	**54.0%**	**56.5%**	**Not Available (N/A)**	**N/A**
Breastfeeding at 6 Months of Age	**23.9%**	**21.7%**	**25.3%**	**N/A**	**N/A**
WIC Ever Breastfeed	**N/A**	**26%**	**27.8%**	**23.7%**	**30.1%**
WIC Currently Breastfeed	**N/A**	**8.8%**	**9.6%**	**10.3%**	**12.7%**

Data Needs: A more timely data collection system is needed that captures breastfeeding information on all infants born in Kentucky. With the revision of the Birth Certificate, beginning in 2004 and forward, breastfeeding information at time of discharge will be collected on all Birth Certificates.

Strategies to Achieve Objective:

- Provide education and support to mothers before and after delivery
- Improve information given to pregnant and breastfeeding women through continuing education offerings for professional staff
- Develop and maintain a Breastfeeding Peer Counselor Program through the USDA
- Continue to increase the number of available lactation consultants in communities

12.16. Reduce the incidence of Neural Tube Defects (Spina Bifida and Anencephaly) to 12 per 10,000 births by increasing to at least 50 percent the proportion of women of childbearing age who take a daily vitamin that contains 0.4 mg of folic acid.

Data Sources: Kentucky Birth Surveillance Registry; Kentucky Vital Statistics Live Birth Certificate files, and the Kentucky Behavioral Risk Factor Surveillance System; 2004 data are preliminary and numbers could change.

Baseline: Neural Tube Defects: 8.7 per 10,000 births in 2000
Daily Folic Acid Consumption: 41.7% in 2000

HK 2010 Target: Neural Tube Defects: 12 per 10,000 births
Daily Folic Acid Consumption: 50%

Mid-Decade Status: Neural Tube Defects: 5.3 per 10,000 births in 2004
Daily Folic Acid Consumption: 45.6% in 2004

Indicator	2000	2001	2002	2003	2004
Neural Tube Defects	**8.7/10,000**	**5.1/10,000**	**5.4/10,000**	**5.6/10,000**	**5.3/10,000**
Daily Folic Acid Use	**41.7%**	**39.6%**	**40.4%**	**N/A**	**45.6%**

Data Needs: The folic acid module was not included on the 2003 BRFSS Survey and therefore no data is available on daily folic acid consumption for year 2003.

Strategies to Achieve Objective:

- Provide folic acid educational services/materials to health professionals, community members and the media through the activities of the Kentucky Folic Acid Partnership
- Provide folic acid supplements to all eligible women in local health departments through the Folic Acid Counseling and Supplementation Program
- Promote preconception genetic counseling for all women of childbearing age and especially for those women identified as having an increased risk for a pregnancy affected by a neural tube defect (i.e. previously affected pregnancy, medication use, diabetes)
- Educate the general public about all the benefits of folic acid to promote increased consumption

12.17. Increase to at least 50 percent the proportion of pregnant smokers who abstain from tobacco use beginning early in pregnancy and maintain abstinence for the remainder of their pregnancy, following delivery, and through 6 weeks postpartum. (See Revision)

12.17R. (REVISION) Increase to at least 20 percent the proportion of pregnant smokers who abstain from tobacco use beginning in the first trimester of pregnancy and maintain abstinence for the remainder of their pregnancy.

Reason for Revision: This revision reflects the change in the live birth certificate to incorporate a revised question on smoking history prior to pregnancy and for each trimester of pregnancy.

Data Source: Vital Statistics Live Birth Certificate files, 2004

Baseline: 11.7 percent in 2004

HK 2010 Target: 20 percent

Mid-Decade Status: 11.7 percent in 2004

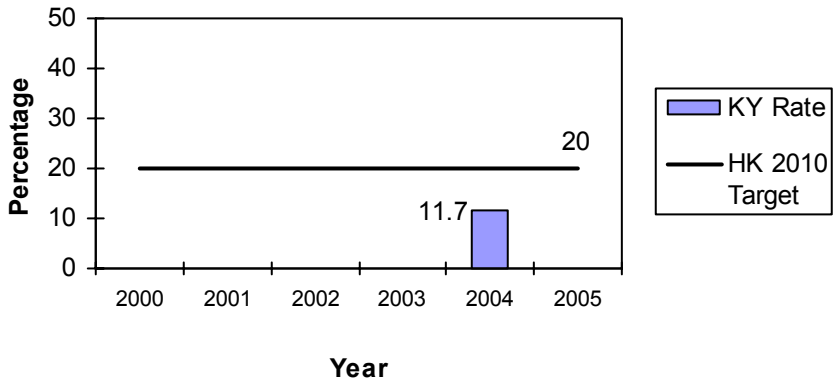

Figure 12.11 Percentage of Pregnant Smokers Who Abstained from Smoking Beginning in the First Trimester and Abstained Throughout Pregnancy, Kentucky, 2004 (Source: Vital Statistics Surveillance System)

Data Needs: Data for this objective is only available for year 2004 due to a revision in how the question on smoking status is being asked. Beginning in 2004, this question was revised to include smoking status prior to pregnancy and smoking status during each trimester of pregnancy. This question will continue to be asked in the same manner in the future. Therefore, the baseline for this objective serves as the mid-decade status.

Strategies to Achieve Objective:

- Implementation of a Medicaid funded smoking cessation and counseling program for pregnant women, which includes individual counseling and nicotine replacement therapy

- Educate the public on the adverse effects of smoking and second hand smoke on pregnant women and children and available smoking cessation therapies
- Incorporate a comprehensive program for health care providers to help them counsel pregnant women and mothers to stop smoking. For example, Make Yours A Fresh Start Family is a program based on the Agency for Health Care Policy and Research (AHCPR) Clinical Practice Guidelines on Smoking Cessation
- Provide regionally located intensive training workshops for health care providers on smoking cessation and monitoring specifically for pregnant women

12.18. Reduce the incidence of Fetal Alcohol Syndrome (FAS) by increasing abstinence from alcohol use by pregnant women. (DELETED)

Reason for Deletion: This objective was deleted due to lack of a data source for appropriate monitoring.

12.19. (Developmental) Reduce the incidence of birth defects caused by prenatal exposures to prescription medications with known teratogenic effects, such as Acutane and anti-seizure medications. (DELETED)

Reason for Deletion: This objective was deleted due to lack of a data source for appropriate monitoring.

12.20. Increase by 50 percent the number of pregnant alcohol and/or drug abusers who are admitted to publicly funded substance abuse treatment programs.

Data Sources: Division of Mental Health and Substance Abuse

Baseline: 276 in 2000

HK 2010 Target: 414

Mid-Decade Status: 630 in 2004

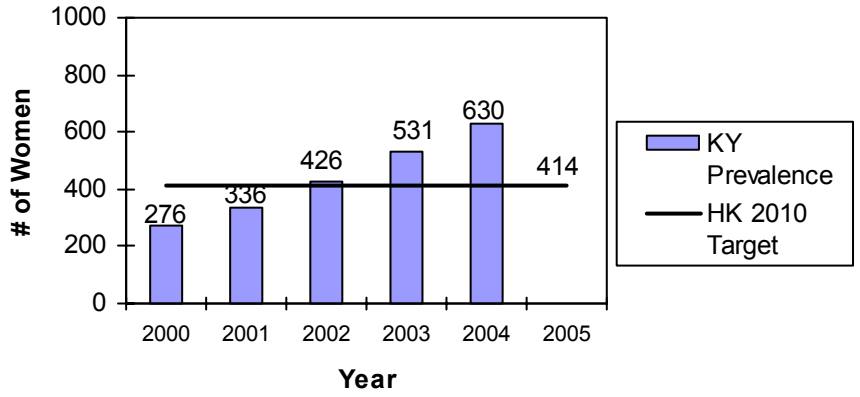

Figure 12.12 Number of Pregnant Women Admitted to Publicly Funded Substance Abuse Treatment Programs, Kentucky, 2000-2004 (Source: Division of Substance Abuse

Data Needs: An annual survey of pregnant women in Kentucky like PRAMS is needed for continued monitoring of pregnant women and substance abuse.

Strategies to Achieve Objective:

- Counsel all women obtaining a pregnancy test on the effects of alcohol, tobacco, and other drugs (ATOD) and available resources
- Promote continuing education of all health care professionals on needed screening skills and appropriate referrals for substance abuse
- Increase collaboration between the local health departments and the Community Mental Health Centers through the establishment of linkage agreements to increase identification and referral of pregnant women requiring substance abuse prevention or treatment services
- Provide sufficient funding for substance abuse prevention and treatment services

12.21. Ensure that 100 percent of all newborns are tested for phenylketonuria (PKU), congenital hypothyroidism, galactosemia and hemoglobinopathies. (See Revisions)

12.21R. (REVISION) Ensure that 96 percent of all newborns are tested for phenylketonuria (PKU), congenital hypothyroidism, galactosemia and hemoglobinopathies.

Reason for Revision: The goal for this objective was changed due to the fact that screening records for Kentucky babies born out of state cannot be obtained and therefore it cannot be determined if 100 percent of Kentucky's babies have been screened.

Data Sources: Kentucky Newborn Screening Database, and Vital Statistics Live Birth Certificate files 2001-2003

Baseline: 94.5 percent in 2001

HK 2010 Target: 96 percent

Mid-Decade Status: 93.2 percent in 2003

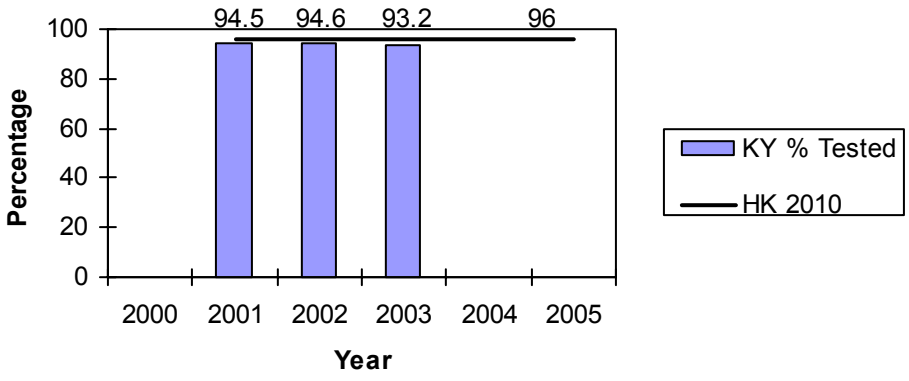

Figure 12.13 Percentage of New borns Tested for PKU, Congenital Hypothyroidism, Galactosemia, and Hemoglobinopathies, Kentucky, 2001-2003 (Source: New born Screening Database and Vital Statistics Surveillance System)

Data Needs: An integrated database that links vital records with newborn screening records is needed to assure accuracy of screening rates. Data for 2004 are currently not available.

Strategies to Achieve Objective:

- Develop integrated database linking to vital birth records for identification of infants not screened
- Educate hospitals, parents, and providers on importance of newborn screening
- Develop hospital report cards on compliance with screening to identify problems
- Modify regulation to require birthing hospitals to establish protocol for assuring every newborn receives screening

12.22. (Developmental) Increase the proportion of babies aged 18 months and younger who receive recommended primary care services at the appropriate intervals. (DELETED)

Reason for Deletion: This objective was deleted due to lack of a data source for appropriate monitoring.

12.23. Reduce the prevalence and limit the consequences of serious developmental disabilities arising from events in the prenatal and infant periods. (See Revision)

12.23R.(REVISION) Reduce the number of children with serious developmental disabilities, such as Cerebral Palsy, among children aged 0-5 years old; and Hearing Impairment, Visual Impairment, and Developmental Delay among children aged 3-5 years old.

Reason for Revision: This revision reflects a more accurate application of current data available for tracking developmental disabilities.

Data Source: Kentucky Birth Surveillance Registry and Kentucky Department of Education, Division of Exceptional Children Services; 2003 and 2004 data is currently not available for Cerebral Palsy.

Baseline: Cerebral Palsy, 39 in 2000
Hearing Impairment, 765 in 2000
Visual Impairment, 494 in 2000
Developmental Delay, 6,982 in 2000

HK 2010 Target: Cerebral Palsy, 21
Hearing Impairment, 671
Visual Impairment, 437
Developmental Delay, 6,633

Mid-Decade Status: Cerebral Palsy, 22 in 2002
Hearing Impairment, 706 in 2004
Visual Impairment, 460 in 2004
Developmental Delay, 9,808 in 2004

Indicator	2000	2001	2002	2003	2004
Cerebral Palsy	**39**	**34**	**22**	*****	*****
Hearing Impairment	**765**	**711**	**692**	**687**	**706**
Visual Impairment	**494**	**459**	**468**	**463**	**460**
Developmental Delay	**6,982**	**7,658**	**8,176**	**9,075**	**9,808**

Data Needs: A uniform and consistent database for capturing information regarding developmental disabilities is needed as well as standard definitions for each disability.

Strategies to Achieve Objective:

- Increase the reporting sources for the Kentucky Birth Surveillance Registry (KBSR) to improve the data quality for cerebral palsy and other conditions that may lead to developmental delay

- Assure that women with high-risk pregnancies have access to health care providers who are qualified to manage high-risk pregnancies and deliveries
- Promote the First Steps Program in which anyone, including parents, may make a referral to one of the fifteen (15) Point of Entry offices to refer a child they suspect may be delayed. These children are screened to determine if they have a significant delay in one or more of the following skill areas: Communication, Mobility, Cognitive, Social/Emotional, or Adaptive
- Promote early and comprehensive prenatal, postpartum and infant assessment and intervention through the HANDS program

12.24. To increase to 100 percent the number of newborns who are screened for hearing disorders and when indicated, receive appropriate diagnosis and intervention by 6 months of age. (See Revision)

12.24R. (REVISION) Increase to 100 percent the number of newborns who are screened for hearing disorders.

Reason for Revision: The database containing information on those children with hearing disorders is not yet ready for analysis of interventions.

Data Sources: Kentucky Universal Newborn Hearing Screening Program (UNHS). This program was implemented January 1, 2001; therefore, information is unavailable prior to that date. Kentucky birthing hospitals with 40+ births per year are required to submit hearing screening reports to UNHS. (Data provided includes only those hospitals with 40+ births per year.)

Baseline: 99.2 percent in 2001

HK 2010 Target: 100 percent

Mid-Decade Status: 99.4 percent in 2004

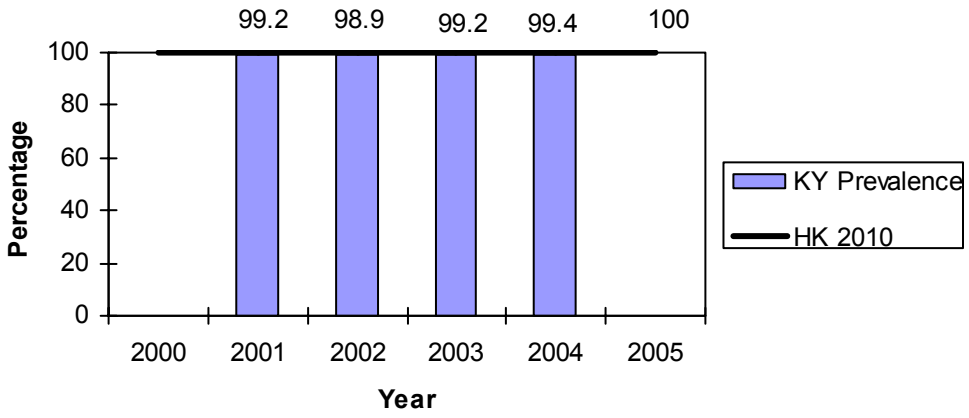

Figure 12.14 Percentage of Newborns Screened for Hearing Disorders, Kentucky, 2001-2004 (Source: UNHS)

Data Needs: Data from hospitals not covered under the UNHS program

Strategies to Achieve Objective:

- Continued maintenance and implementation of the Universal Newborn Hearing Screening program in the state
- Expand the mandate (regulation) covering the Universal Newborn Hearing Screening program to include all birthing hospitals in the state of Kentucky regardless of number of births per year

References

- Kentucky Youth Risk Behavior Surveillance Survey, 2003
- Behavioral Risk Factor Surveillance System, 2000-2004
- Title X Family Planning Services Grantee profile
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- Family Planning Needs and Services, Alan Guttmacher Institute, Vol.1, 1994-1998
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12. Maternal, Infant, and Child Health – Summary Tables

Summary of Objectives for Maternal, Infant, and Child Health	Baseline	HK 2010 Target	Mid-Decade Status	Progress	Data Source
12.1. Reduce infant mortality to no more than 6/1,000 live births.	6.7/1,000 (2000)	≤6/1,000	6.5/1,000 (2004)	Yes	Vital Statistics
12.2. Reduce the infant mortality rate due to birth defects to 1.2/1,000 live births.	1.4/1,000 (2000)	≤1.2/1,000	1.1/1,000 (2004)	Target Achieved	Vital Statistics
12.3. Reduce the Sudden Infant Death Syndrome (SIDS) mortality rate to 0.3/1,000 live births.	0.6/1,000 (2000)	≤0.3/1,000	0.9/1,000 (2004)	No	Vital Statistics
12.4. Reduce the rate of child mortality to a) 20/100,000 children ages 1-4 and b) 17/100,000 children ages 5-14.	a)33.8/ 100,000 (2000)	≤20/ 100,000	33.9/ 100,000 (2004)	No	Vital Statistics
	b)17.5/ 100,000 (2000)	≤17/ 100,000	17/ 100,000 (2004)	Target Achieved	Vital Statistics
12.5. Reduce the fetal death rate to no more than 4/1,000 live births plus fetal deaths.	6.4/1,000 (2000)	≤4/1,000	5.7/1,000 (2004)	Yes	Vital Statistics
12.6. Reduce the perinatal mortality rate to no more than 4.5/1,000 live births plus fetal deaths.	9.1/1,000 (2000)	≤4.5/1,000	7.5/1,000 (2004)	Yes	Vital Statistics
12.7. Reduce the maternal mortality rate to no more than 3.3/100,000 live births.	3.6/ 100,000 (2000)	≤3.3/ 100,000	7.7/ 100,000 (2004)	No	Vital Statistics
12.8R. Increase to 25 percent the percentage of women of childbearing age who routinely receive preconception counseling in the local health departments.	13.3% (2000)	≥25%	11.1% (2004)	No	PSRS
12.9. Increase to at least 90 percent the proportion of all pregnant women who begin prenatal care in the first trimester of pregnancy.	85.7% (2000)	≥90%	86.2% (2004)	Yes	Vital Statistics
12.10. Increase to at least 95 percent the proportion of all live born infants whose mothers received adequate prenatal care based on the Kotelchuck Index.	80.6% (2000)	≥95%	82% (2004)	Yes	Vital Statistics
12.11. (DELETED)					
12.12. Reduce the incidence of a) low birth weight to no more than 5 percent,	a) 8.2% (2000)	≤5%	8.4% (2004)	No	Vital Statistics
b)very low birth weight to no more than 1 percent and reduce the incidence of	b) 1.5% (2000)	≤1%	1.5% (2004)	No	Vital Statistics
c)premature birth to no more than 7.6 percent of all live births.	c)12.7% (2000)	≤7.6%	15.8% (2004)	No	Vital Statistics
12.13. Increase to at least 90 percent the proportion of very low birth weight infants (<1500 grams) born at facilities equipped for high-risk deliveries and neonates.	51.7% (2000)	≥90%	52% (2004)	Yes	Vital Statistics

Summary of Objectives for Maternal, Infant, and Child Health	Baseline	HK 2010 Target	Mid-Decade Status	Progress	Data Source
12.14. (DELETED)					
12.15R. Increase to at least 75 percent the proportion of mothers who breastfeed their babies at hospital discharge; to at least 50 percent the proportion who continue breastfeeding until their babies are 6 months old; and increase among the WIC population to at least 50 percent the proportion of mothers who have ever breastfed their babies; to at least 25 percent the proportion who are currently breastfeeding their babies. <u>Kentucky</u> Hospital discharge	54.2% (2000)	≥75%	56.5% (2002)	Yes	Ross Survey
6 months of age	23.9% (2000)	≥50%	25.3% (2002)	Yes	Ross Survey
<u>WIC Population</u> Ever breastfed	26% (2001)	≥50%	30.1% (2004)	Yes	WIC
Currently breastfeed	8.8% (2001)	≥25%	12.7% (2004)	Yes	WIC
12.16. Reduce the incidence of Neural Tube Defects (Spina Bifida and Anencephaly) to 12/10,000 births by increasing to at least 50% the proportion of women of childbearing age who take a daily vitamin that contains 0.4mg of folic acid.	8.7/10,000 (2000)	≤12/10,000	5.3/10,000 (2004)	Target Achieved	KBSR
	41.7% (2000)	≥50%	45.6% (2004)	Yes	BRFSS
12.17R. Increase to at least 20 percent the proportion of pregnant smokers who abstain from tobacco use beginning in the first trimester of pregnancy and maintain abstinence for the remainder of their pregnancy.	11.7% (2004)	≥20%	11.7% (2004) Preliminary Data	N/A	Vital Statistics
12.18. – 12.19. (DELETED)					
12.20. Increase by 50 percent the number of pregnant alcohol and/or drug abusers who are admitted to publicly funded substance abuse treatment programs.	276 (2000)	≥414	630 (2004)	Target Achieved	MHMR
12.21R. Ensure that 96 percent of all newborns are tested for phenylketonuria (PKU), congenital hypothyroidism, galactosemia, and hemoglobinopathies.	94.5% (2001)	≥96%	93.2% (2003)	No	NBS & Vital Statistics
12.22. (DELETED)					

Summary of Objectives for Maternal, Infant, and Child Health	Baseline	HK 2010 Target	Mid-Decade Status	Progress	Data Source
12.23R. Reduce the number of children with serious developmental disabilities such as Cerebral Palsy among children aged 0-5 years old and Hearing Impairment, Visual Impairment, and Developmental Delay among children aged 3-8 years old.					
Cerebral Palsy	39 (2000)	≤21	22 (2002)	Yes	KBSR
Hearing Impairment	765 (2000)	≤671	706 (2004)	Yes	KDE
Visual Impairment	494 (2000)	≤437	460 (2004)	Yes	KDE
Developmental Delay	6,982 (2000)	≤6,633	9,808 (2004)	No	KDE
12.24. Increase to 100 percent the number of newborns who are screened for hearing disorders.	99.2% (2001)	100%	99.4% (2004)	Yes	UNHS

R = Revised objective
N/A = Only baseline data are available. Not able to determine progress at this time.